IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Robert T. George, Et Al.	§	Group Art Unit:	2181
Serial No.:	10/630,287	§	Examiner:	Niketa I. Patel
Filed:	July 30, 2003	§		
For:	Dynamically Partitioning Pipeline Resources	§	Atty. Dkt. No.:	ITL.1004US (P16592)

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FOURTH AMENDED APPEAL BRIEF TRANSMITTAL

Sir:

Transmitted herewith is a corrected Status of Claims and Claims Appendix sections for this application. Pursuant to the Notification of Non-Compliant Appeal Brief mailed November 28, 2007, "an entirely new brief is not required only the defective part of the Brief...."

The First Appeal Brief was filed on October 25, 2006, the first Amended Appeal Brief was filed on February 2, 2007, the second Amended Appeal Brief was filed on June 6, 2007 and the third Amended Appeal Brief was filed on November 9, 2007.

Date of Deposit: 12/20/07
I hereby certify under 37 CFR § 1.8 this correspondence is being deposited as a facsimile transmission to (571) 273-8300 on the date indicated above.

Stephanie Petreas

Pursuant to M.P.E.P. § 1205, there is no fee due for this Appeal, because the Examiner requested that the Appellant file a new Appeal Brief in compliance with 37 CFR 41.37(c) after filing of the Third Amended Appeal Brief on November 9, 2007. The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 20-1504.

Respectfully submitted,

Date: 12/20/07

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III. STATUS OF CLAIMS

Claims 1-10 and 17-30 stand rejected. Claims 11-16 have been cancelled. The rejections of pending claims 1-10 and 17-30 are being appealed.

VII. CLAIMS APPENDIX

The claims on appeal are:

1. A method comprising:

invalidating an entry of a filter coupled to a pipeline resource if an update to the entry occurs during a context; and

flushing a portion of the pipeline resource corresponding to an address space including the entry.

2. The method of claim 1, further comprising flushing the portion upon a switch from the context.

3. The method of claim 1, wherein the pipeline resource comprises a translation lookaside buffer.

4. The method of claim 1, further comprising comparing an address obtained from an external snoop to a plurality of entries in the filter to determine if the update has occurred.

5. The method of claim 1, further comprising flushing the portion of the pipeline resource via microcode.

6. A method comprising:

flushing a portion of entries of a pipeline resource if one of the portion of entries is updated during a context.

7. The method of claim 6, further comprising selectively flushing the portion of entries upon a switch from the context.

8. The method of claim 7, wherein the portion of entries comprises an address space corresponding to the context.

9. The method of claim 6, wherein the pipeline resource comprises a translation lookaside buffer.

10. The method of claim 9, further comprising invalidating entries of a filter coupled to the translation lookaside buffer corresponding to the portion of entries.

17. An apparatus comprising:

a pipeline resource having a plurality of address spaces, each of the plurality of address spaces corresponding to one of a plurality of contexts, each one of the plurality of address spaces selectively flushable while the other address spaces are maintained.

18. The apparatus of claim 17, wherein the pipeline resource comprises a translation lookaside buffer.

19. The apparatus of claim 17, further comprising a filter coupled to the pipeline resource to select at least one of the plurality of address spaces to be flushed.

20. The apparatus of claim 19, wherein the filter comprises a content addressable memory.

21. A method comprising:

dynamically partitioning a filter of a pipeline resource into a plurality of partitions, each of the partitions corresponding to one of a plurality of address spaces.

22. The method of claim 21, further comprising sharing the pipeline resource among a plurality of applications, each corresponding to one of the plurality of address spaces.

23. The method of claim 22, wherein each of the plurality of partitions includes a fixed portion and wherein the filter further comprises a dynamic portion.

24. The method of claim 23, further comprising allocating at least part of the dynamic portion to one of the plurality of applications that has consumed the fixed portion of one of the plurality of partitions.

25. An article comprising a machine-readable storage medium containing instructions that if executed enable a system to:

dynamically partition a filter of a pipeline resource into a plurality of partitions, each of the partitions corresponding to one of a plurality of address spaces.

26. The article of claim 25, further comprising instructions that if executed enable the system to permit a plurality of applications, each corresponding to one of the plurality of address spaces, to share the pipeline resource.

27. The article of claim 26, further comprising instructions that if executed enable the system to allocate at least part of a dynamic portion of the filter to one of the plurality of applications that has consumed one of the plurality of partitions.

28. A system comprising:

a first processor having a pipeline resource having a plurality of address spaces, each of the plurality of address spaces corresponding to one of a plurality of contexts, each one of the plurality of address spaces selectively flushable while the other address spaces are maintained; and

a dynamic random access memory coupled to the first processor.

29. The system of claim 28, further comprising a second processor coupled to the first processor.

30. The system of claim 29, further comprising a filter coupled to the pipeline resource to snoop address information from the second processor.